WEST Search History

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DATE: Thursday, May 13, 2004

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☐	L7	L6 and l2	19
☐	L6	20011231	117
☐	L5	l1.ti.	150
☐	L4	20011231	5
☐	L3	message near8 (segment or segmenting or segmentation) near8 (store or storing or stored or buffer of buffering) near8 (intermediate or complete of full)	5
☐	L2	message near8 (segment or segmenting or segmentation) near8 (store or storing or stored or buffer of buffering)	681
☐	L1	message near8 (segment or segmenting or segmentation)	5160

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L4: Entry 3 of 5 File: USPT Nov 18, 1997

DOCUMENT-IDENTIFIER: US 5689501 A
** See image for Certificate of Correction **
TITLE: Connectionless communication system

Application Filing Date (1):
19950504

CLAIMS:

5. A communication system according to claim 1, wherein said error detecting means of a transmit-side routing control device is equipped with a COM cell editing means (213) for, when detecting said error, editing a COM cell in which COM, indicating an intermediate cell of a plurality of cells into which a message has been segmented by said cell assembly/disassembly means, is placed as a segment type and a message identifier (MID) for said message is stored, and sending said COM cell to a receive-side routing control device, said receive-side routing control device being responsive to an arrival of said COM cell to release said message identifier (MID) stored in said COM cell.

L4: Entry 2 of 5 File: USPT Dec 25, 2001

DOCUMENT-IDENTIFIER: US 6333932 B1
** See image for Certificate of Correction **
TITLE: Connectionless communications system, its test method, and intra-station control system

Application Filing Date (1):
19950821

Detailed Description Text (1741):
If the data length of the LAP-D is 256 bytes (refer to FIG. 750 in part 7), the message is divided into a plurality of 44-byte segments to be stored in the payloads of plural SAR-PDUs. Accordingly, the LAP-D data is stored and transferred after being divided into a plurality of ATM cells. In this case, the SAR-PDU storing the leading segment is assigned a beginning of message (BOM) for its ST and 44 bytes for its LI. The SAR-PDU storing an intermediate segment is assigned a continuation of message (COM) for its ST and 44 bytes for its LI. The SAR-PDU storing the trailing segment is assigned an end of message (EOM) for its ST and 36 bytes for its LI (refer to FIG. 750 in part 7).

Detailed Description Text (5057):
If the data length of the LAPD is 256 bytes (refer to FIG. 750), the message is divided into 44-byte segments, and the segments are stored in the payloads of a plurality of SAR-PDU. Therefore, the LAPD data is divided and stored in a plurality of ATM cells, and then transferred. In this case, the beginning of message (BOM) is set as an ST in the SAR-PDU storing the leading segment, and 44 bytes are assigned as an LI. The continuation of message (COM) is set as an ST in the SAR-PDU storing an intermediate segment, and 44 bytes are assigned as an LI. Furthermore, the end of message (EOM) is set as an ST in the SAR-PDU storing the trailing segment, and 36 bytes are assigned as an LI (FIG. 750).

L10: Entry 5 of 11 File: USPT Aug 6, 2002

DOCUMENT-IDENTIFIER: US 6430607 B1
TITLE: System and method for performing remote requests with an on-line service network

Application Filing Date (1):
19981112

Detailed Description Text (279):
Referring again to FIG. 21A, each packet 2100 further contains a four-byte cyclical redundancy check (CRC) code 2120 (in accordance with CRC-32) to permit detection and correction of errors. Each packet 2100 ends with a packet delimiter 2122, such as an ASCII carriage return code.

Detailed Description Text (282):
A packet 2100 being sent from the Gateway 124 to the client processor 102 contains segments 2106 corresponding to the MAIL, CHAT and VIDEO GAMES services. Each segment 2106 contains a portion of an outgoing message stored in one of the buffers 2202b, 2204b, 2206b. The packet 2100 is generated by the MCP layer 210 by extracting and multiplexing message data from the buffers 2202b, 2204b, 2206b in a round robin fashion. When the packet 2100 arrives at the client processor 102, the MCP layer 210 extracts and demultiplexes the segments, and stores the message data in the corresponding MAIL, CHAT and VIDEO GAMES buffers 2202a, 2204a, and 2206a. Messages sent from the client processor 102 to the Gateway 124 are multiplexed, packetized, and demultiplexed in the same manner.

CLAIMS:

3. The remote request system of claim 2 wherein said client request layer further comprises a dynamic routine wherein said dynamic routine receives said response messages and stores said incremental data segments in said data buffers referenced by said dynamic object.

Generate Collection

DOCUMENT-IDENTIFIER: US 6614793 B1
TITLE: Device for segmentation and transmission of messages stored as blocks of variable length

Application Filing Date (1):
19991006

Brief Summary Text (16):
According to a first aspect of the present invention there is provided an apparatus for segmenting a plurality of messages stored as blocks of variable length in one or more message memories and transmitting them as information segments, the apparatus comprising: a message data memory for storing, for each message, message data defining a location of the respective block in one of the message memories, a position in the respective block and a block length; and loading apparatus for, at time intervals, retrieving a portion of data from the message memory at the location indicated in the message data, adding portion content information to the portion of data to form an information segment, transmitting the information segment, incrementing the message data defining said location and said position for the selected block in the message data memory by an amount equal to the length of the portion of data and comparing the incremented position with the stored block length for the selected message to determine whether the end of the block has been reached.

Brief Summary Text (17):
As each segment is transmitted the loading apparatus preferably performs an error check calculation on the segment and stores the result for the respective message in the message data memory.

CLAIMS:

1. Apparatus for segmenting a plurality of messages and transmitting them as information segments, the apparatus comprising: one or more message memories to store the plurality of messages as blocks of variable length based on a respective length of each message; a message data memory for storing, for each message, message data defining a location of a respective block in one of the message memories, a position in the respective block and a block length; and loading apparatus for, at time intervals, retrieving a portion of data of a selected message from the one of the message memories in which the selected message is stored at the location indicated in the message data, adding portion content information to the portion of data to form an information segment, transmitting the information segment, incrementing the message data defining said location and said position for the respective block in the message data memory by an amount equal to the length of the portion of data and comparing the incremented position with the stored block length for the selected message to determine whether the end of the block has been reached.

2. Apparatus as claimed in claim 1, wherein as each segment is transmitted the loading apparatus performs an error check calculation on the segment and stores the result for the respective message in the message data memory.

First Hit Fwd Refs

Generate Collection

L20: Entry 4 of 17 File: USPT Sep 17, 2002

DOCUMENT-IDENTIFIER: US 6453297 B1
TITLE: Medical transaction system

Application Filing Date (1):
19961231

Detailed Description Text (14):
The commercial and customized software of the preferred embodiment that executes on the computer platform for the medical transaction system 18 provides a medical transaction processing kernel 22 surrounded by a layer of communication software 24 as shown in FIG. 4. The communication layer 24 includes receiver and transmitter software that receives and transmits the data messages, recognizes the protocols by which the messages are received by and sent to the medical transaction system and handles the handshaking signals required to receive and send the data messages respectively. For received messages, the receiver of the communication layer 24 strips off the protocol specific elements and provides the data message in the format in which it was received to the medical transaction processing kernel 22. For transmitted messages, the kernel 22 provides formatted data messages to the transmitter of the communication layer 24 which supplies the protocol specific elements for a particular computer station and then transmits the data message to the computer station in the communication protocol that corresponds to that computer station.

Detailed Description Text (17):
Broadly, the transaction manager receiver 26 handles the communication protocol and handshaking to receive a data message from a computer station and the service routine 28 performs a security function to determine whether the computer station communicating with the transaction manager receiver is an authorized station. After confirming the station is authorized, the transaction manager receiver 26 preferably stores the received data messages in a transmission file 30. Other functions needed to facilitate communication with the computer stations may be incorporated in service routine 28. Thus, portions of service routine are part of the communications layer 24 while other portions are part of the processing kernel 22.

Detailed Description Text (23):
Having established the communication link with the computer station, the transaction manager receiver 26 inputs data from the computer station, (Box 110), and builds a received data message, (Box 110), until a complete data message has been received. (Box 114). If an insufficient amount of data is received to form a complete data message, (Box 112), communication is terminated, (Box 108), or a retransmission requested. (Box 109). Once a complete data message has been received, the transaction manager receiver 26 passes it to the service routine 28. (Box 116). Transaction manager receiver 26 determines if the service routine 28 is processing a security or data message, (for example, by checking the data and security message flags), and writes a complete data message to transmission file 30, (Box 119), or returns to monitoring the input lines for data messages, (Box 100). Both the data message and station identification code are preferably written to the transmission file 30. (Box 119).

Detailed Description Text (27):
In more detail, the compiler processing is shown in the flow chart of FIG. 8. The compiler 34 initiates its processing by taking a received data message and station identifier from the disc scanner 32, (Box 150), and retrieves the data message format for the received message by using the computer station identification code. (Box 152). The format is used to extract data from the received data message, (Box 154), and the extracted data is inserted into a generic data record that corresponds to the station identification code, (Box 156), which is passed to the verifier. (Box 158). The compiler 34 checks to see if there are any other data messages to process, (Decision Box 160), and if there are, the processing continues. If there are no other data messages to process, the compiler 34 terminates its processing.

Detailed Description Text (32):
The processing of the response generator 38 is shown in the flowchart of FIG. 10. Response generator 38 begins by determining if there are any error records from verifier 36. (Decisions Box 190). If there are, the error records are converted to error messages, each with a format corresponding to the computer station identifier, (Box 192), which are written to the response file 40. (Box 194). Processing continues by checking for more error messages. (Decision Box 190).

Detailed Description Text (33):
If there are no error messages to process, response generator 38 determines if it is time to collect error messages for transmission to computer stations. (Decision Box 196). If it is, a computer station identifier is selected, (Box 198), and the formatted error messages corresponding to the station identifier are collected from response file 40. (Box 200). The collected error messages are provided to transaction manager transmitter 46 (FIG. 11) for transmission to the computer station. (Box 202). If there are more station identifiers, (Decision Box 204), error message collecting continues. Otherwise, processing terminates. Alternatively, response generator 38 may periodically retrieve error records for a predetermined computer station identification code or series of such codes, convert the records to error messages, and supply the messages to the transmitter 46 for transmission to the corresponding station(s).

Detailed Description Text (37):
The processing of the formatter 44 is shown in more detail in the flow chart of FIG. 13. The formatter 44 first initializes a block pointer to the location of the first message in a data block passed by extractor 42. (Box 224). Formatter 44 retrieves the station identifier from the message. (Box 226). After extracting information from the data message, (Box 228), the information is formatted in a format that corresponds to the computer station identifier, (Box 230), and is written to a station message block. (Box 232). The block pointer is incremented to the next message location, (Box 234), and if the formatter 44 determines that there is another message in the data block to format into the station message format, (Decision Box 236), processing of the message in the data message block continues. Otherwise, the station message block is provided to the transaction manager transmitter 46 for transmission to the computer station. The formatter 44 determines whether another data message block is available from the extractor 42, (Decision Box 240), and if it is, initializes the block pointer to the first message in the block and the processing continues. Otherwise, processing for the formatter 44 terminates.

Detailed Description Text (38):
The transmitter 46 of the transaction manager is shown in more detail in FIG. 14. After the formatter 44 provides the station message block to the transaction manager 46, the transaction manager initializes a transmitter pointer to the first message in a station message block, (Box 246), and retrieves the station identification code, (Box 248), to determine the communication protocol for the computer station. Any protocol specific elements that must be added to the data

message block for transmission to the computer station are inserted in the station message block. (Box 250). The transaction manager transmitter 46 selects the hardware interface for transmission of the data block to the computer station and transfers the protocol organized message block to the hardware interface for the protocol corresponding to the computer station. (Box 252). The transaction manager transmitter 46 determines whether another station block is available for transmission, (Decision Box 254), and if it is, processing of the next station message block continues. Otherwise, the transaction manager transmitter 46 terminates processing.

US005644778A

United States Patent [19]

Burks et al.

[11] Patent Number: 5,644,778

[45] Date of Patent: Jul. 1, 1997

[54] **MEDICAL TRANSACTION SYSTEM**

[75] Inventors: **James L. Burks**, Pendleton; **Robert R. Schick**; **Sheila H. Schweitzer**, both of Louisville, all of Ky.

[73] Assignee: **Athena of North America, Inc.**, Indianapolis, Ind.

[21] Appl. No.: **147,156**

[22] Filed: **Nov. 2, 1993**

[51] **Int. Cl.**[6] **G06F 13/00**

[52] **U.S. Cl.** **395/800**; 395/200.15; 395/202; 395/203; 235/375; 364/222.2; 364/224.5; 364/230.6; 364/DIG. 1

[58] **Field of Search** ..... 395/800, DIG. 1, 395/200.03, 200.05, 200.15–200.18, 840, 182.02, 185.01, 185.1, 600, 650, 700; 364/280, 280.4, 284.4, 406, 200, 800, 401, 413.02, 413.13, 705.06; 370/60, 85.1, 85.13, 94.1; 235/375, 379, 380; 371/8.2, 20.1

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[57] **ABSTRACT**

A medical transaction system is disclosed which is capable of permitting a plurality of healthcare providers to communicate with a plurality of payors and financial institutions. The healthcare providers, payors, and financial institutions do not have to communicate in the same data message formats nor in the same communication protocols. Such a system facilitates not only the processing of medical claims submitted by the healthcare providers to the payors, but also permits the transfer of medical data records between healthcare providers. The system supports the processing of medical claims without requiring a centralized database or imposing a uniform claim format on the healthcare providers and payors. The preferred embodiment of the invention further includes a financial transactor that uses remittance information from the payors to generate the electronics funds transfer messages to credit and debit accounts. Additionally, the system supports a medical line of credit at financial institutions that may be used to pay portions of medical claims not covered by payors.

42 Claims, 7 Drawing Sheets